

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) A technique for testability of a semiconductor integrated circuit, comprising:

the first step of conducting a fault simulation for the semiconductor integrated circuit based on a set of predetermined test pattern signals and corresponding test results, and discriminating a detectable fault and an undetectable fault from each other, the predetermined test signals being a set of output values from a plurality of registers at an input side of a test object in the semiconductor integrated circuit

the second step of [[list]] listing undetectable faults as undetected faults;

the third step of determining [[the]] test signals conditions for testing detecting the undetectable faults;

the fourth step of determining [[a]] test signals pattern most likely to meet the test signals conditions of the third step from among the set of predetermined test signals patterns of the fault simulation of the first step;

the fifth step of replacing registers at the input side associated with the undetectable faults of the second step with scan registers and connecting the scan registers in a scan chain thereby to construct a modified circuit; and

the sixth step of conducting the fault simulation or [[the]] a test by switching to the test signals condition determined in the third fourth step at the timing corresponding to the undetectable faults while using the determined predetermined test signals pattern in the fourth first

step for the modified circuit.

2. (Original) A technique for testability of a semiconductor integrated circuit according to claim 1, wherein the fifth step includes the step of replacing the input-side registers associated with the undetected faults not by scan registers but by registers with set or reset function thereby to constitute a modified circuit.

3. (Currently Amended) A technique for testability of a semiconductor integrated circuit, wherein [[the]] registers connected to a combination logic circuit constituting an object of [[the]] a test in the semiconductor integrated circuit are classified into first registers that can be controlled and observed directly from a built-in processor, second registers that can be controlled and observed directly from a terminal of the semiconductor integrated circuit and third registers other than the first and second registers, the technique comprising:

the first step of replacing the third registers with scan registers and connecting the scan registers in a scan chain to thereby constitute a modified circuit;

the second step of setting and inputting [[the]] test data to the first and second registers from selected one of the processor and the integrated circuit terminal;

the third step of setting and inputting [[the]] test data to the third register with the shift operation through the scan chain;

the fourth step of performing [[the]] a capture operation of the test data for the combination logic circuit;

the fifth step of outputting [[the]] test result data from the third register with the shift operation through the scan chain; and

the sixth step of outputting [[the]] test result data from the first and second registers.

4. (New) A technique for testability of a semiconductor integrated circuit according to claim 1, wherein the fourth step is conducted by comparing each signal constituting the test signals of the third step to a corresponding signal constituting the predetermined test signals.

5. (New) A technique for testability of a semiconductor integrated circuit according to claim 4, wherein the registers associated with the undetected faults are registers on the input side outputting a different signal from the corresponding signal constituting the predetermined signals.